

PATENT COOPERATION TREATY


PCT

REC'D 25 AUG 2005

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 9999	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/GB2004/003483	International filing date (day/month/year) 12.08.2004	Priority date (day/month/year) 19.08.2003	
International Patent Classification (IPC) or national classification and IPC C08L23/08, C08L23/06, C08J5/18			
Applicant BP CHEMICALS LIMITED et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 08.03.2005		Date of completion of this report 24.08.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Lippert, S Telephone No. +49 89 2399-	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/003483

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-25 as originally filed

Claims, Numbers

1-22 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-22
	No: Claims	
Inventive step (IS)	Yes: Claims	1-22
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-22
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

and /or

2. Non-written disclosures (Rule 70.9)

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/GB2004/003483

Re Item V.

The following documents are referred to in this communication:

D1 : US 4 587 303 A (TURTLE BRIAN L) 6 May 1986 (1986-05-06)

D2 : US 6 110 599 A (GILLESPIE BRUCE ALEXANDER ET AL) 29 August 2000
(2000-08-29)

D3 : WO 02/48258 A (EASTMAN CHEM CO) 20 June 2002 (2002-06-20)

D4 : WO 00/68285 A (CHAI CHOON KOOI ; FRYE CHRISTOPHER JAMES
(FR); BP CHEM INT LTD (GB)) 16 November 2000 (2000-11-16)

1. The claimed subject-matter is considered to be novel as none of the prior art documents cited in the International Search Report or your application, respectively, discloses polymer blends having all the parameters in combination as claimed in the present application (Art.33(2) PCT):

In particular, in all of these documents the ethylene/ alpha olefin copolymer (LLDPE) shows lower melt indices, or slightly overlapping ranges for the melt indices. Furthermore, none of the documents disclose a melt elastic modulus G' ($G''=500\text{Pa}$) in the range of 10 to 150 Pa for the LLDPE component.

It is noted that the melt elastic modulus G' as described in the claims appears to be an unusual parameter. At least no prior art document in the field of LLDPE or LDPE could be found using said parameter. But as present claimed polymer blend differ also in the melt index from the polymer blends of D1-D4, novelty over these documents is recognized.

2. The claimed subject-matter is considered to be inventive as the specific combination of features as now claimed cannot be derived from the prior art documents cited in the International Search Report alone or in combination in an obvious way, nor would any such combination have resulted in the present invention (Art.33(3) PCT).
3. Industrial applicability is given (Art.33(4) PCT).

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/GB2004/003483

Re Item VI.

1. US2003/021569, published on 20/11/2003, and US2004/0053022, published on 18/03/2004, are intermediate documents and may become relevant in the Regional Phase before the EPO.